Introduction

The T10667/T10668 Bald Eagle Floating Reamer Holder Kit provides excellent accuracy and control when chambering gun barrels. The holder compensates for a small amount of misalignment between the chuck and tailstock, allowing the reamer enough free movement to remain aligned with the bore.

This type of holder permits the user to control the reaming process and release the reamer from action, preventing damage that can occur to a barrel when reamers bind.

This reamer holder is only designed for use with reamers that have properly fit bore bushings or solid piloted reamers that have the pilot bushing fitted to the bore. We recommend pre-boring the chamber a little undersize and using a roughing and/or a finishing reamer to complete the process.

Kit Specifications

T10667 Taper .... MT#3
T10668 Taper .... MT#4

Inventory

Description   **Qty**
A. Floating Reamer Holder 1
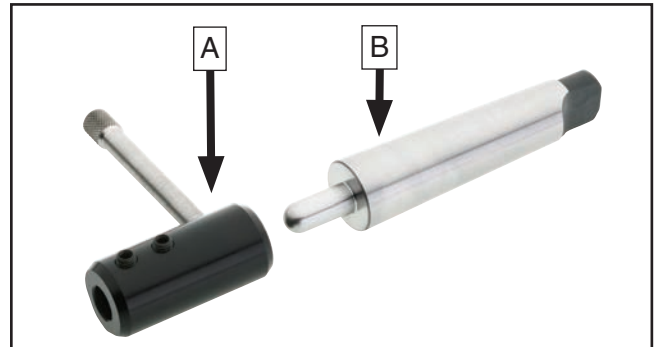**B.** Round-Nose Dead Center.......................... 1

Figure 1. T10667 Bald Eagle Floating Reamer Holder Kit.

Operation

This floating reamer holder is designed to complement a precise setup—not make up for an inaccurate one. Before attempting to use the floating reamer holder, it is critical that every component used in your setup is adjusted as accurately as possible. Additionally, alignment adjustments should be indicated off the bore—not the outside of the barrel.

Because a floating reamer is not rigidly restrained like other methods of reamer control, it takes experience through repetition to use it proficiently. Before working with an expensive barrel, we highly recommend practicing on a scrap barrel until you are familiar with the feel and technique of using a floating reamer.

To use the floating reamer holder when chambering a gun barrel:

1. Set up the barrel in your lathe, per your normal method, centering the bore of the barrel as accurately as possible.

2. Assemble the reamer (not included) and holder by inserting the reamer shank into the holder and tightening the set screws against the reamer flats with a 3mm hex wrench (see **Figure 2**).
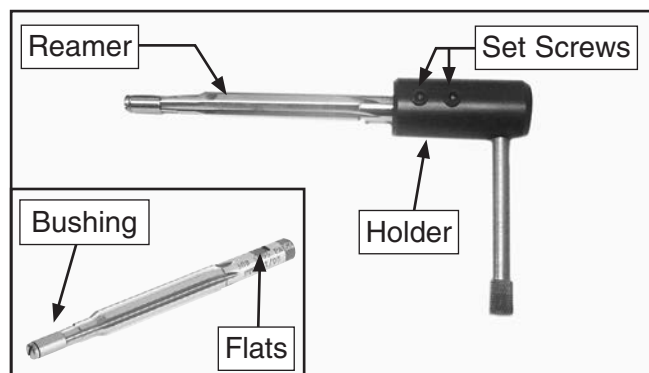

Figure 2. Floating reamer holder and reamer assembled.

3. Insert the round-nose dead center into your tailstock.

4. Apply an ample amount of cutting oil inside the barrel and on the cutting end of the reamer.

   Note: *You will need to continue to provide enough cutting oil throughout the reaming process to ensure a clean cut and tool longevity.*

5. Carefully insert the reamer bushing into the bore while supporting the reamer holder in your hand, so the bushing does not bind.

   Note: *If the bushing binds, it might leave marks inside the barrel, so it is important that you carefully support the weight of the reamer in your hand while inserting the length of the bushing into the bore.*

6. Move the tailstock forward until the rounded end of the dead center begins to enter the reamer holder (see **Figure 3**).
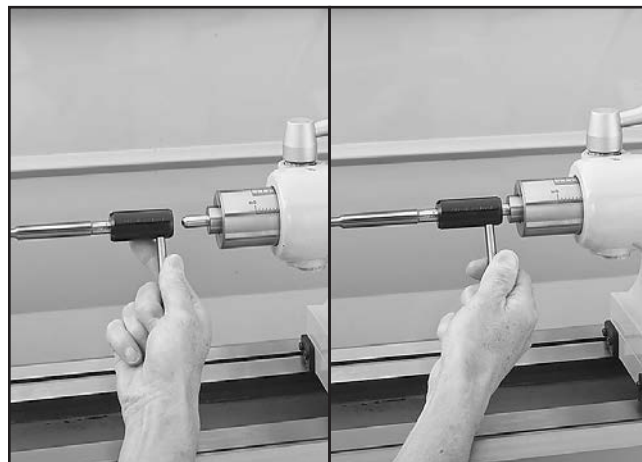

Figure 3. Inserting the dead center into the reamer holder using the tailstock.

7. Turn the lathe **ON** and slowly apply pressure, using the tailstock quill handwheel (after tailstock has been locked onto the bed).

8. Feed the reamer into the barrel bore and make cuts in short increments, stopping frequently to remove chips from inside the flutes.

   We highly recommend that you remove the reamer every 0.020" to 0.050" and clean off the chips from both the reamer as well as the bore and re-oil before continuing.

   Note: *Galling in the chamber from chips packing in the flutes can tear the metal surface in the bore and create grooves in the chamber.*

9. While stopping the lathe, slightly relieve the tailstock pressure. **DO NOT** pull the reamer back before the spindle has completely stopped, as this could scar the chamber.

10. Continue repeating **Steps 3–9** until the reaming process is finished. For precise results, decrease cutting increments as you near the end of the chamber.

T10667/T10668 Floating Reamer Holder